University of Zurich UZH

UZH Blockchain Center

Prof. Dr Claudio J. Tessone
Blockchain and Distributed Ledger Technologies
Group, Head
UZH Blockchain Center, Chairman
Faculty of Business, Economics and Informatics
University of Zurich

Open Position: Senior Research Associate (Postdoc)
Topic: Large scale analytics for blockchain-based systems
Starting date: Upon common agreement (preferably, 2021 Q4)
Duration: 1(+1) years

Responsibilities

Help in the development, management, and supervision of a data facility with the goals of: (i) leading data collection from a number of blockchain-based platforms, (ii) designing instruments for the large-scale analysis of these distributed systems, and (iii) participate of the analysis of the data. There will be particular emphasis on efficient data storage and management with the objective of performing comparative analysis of socio-economic metrics in blockchain-based systems. Special emphasis will be made on network science-oriented methodologies.

The candidate should therefore be able to contribute to the research cycle in a highly innovative field. She/he will also work in collaboration with blockchain developers from multiple platforms, which will give her/him access to unique knowledge and data of techno-economic activity on their platforms. She/he will do so in a highly interdisciplinary and international team.

The appointed candidate must collaborate in supervising students' theses at various levels, teaching activities of the Blockchain and Distributed Ledger Technologies Group, support administrative tasks and contribute to grant applications. We offer: A competitive salary, a well-equipped workspace at an 1st class university, a stimulating interdisciplinary environment in the largest Academic initiative in the area in Switzerland, a World-wide blockchain hub.

Qualifications

The candidate should have a recent Ph.D. in computer science or related field with a strong background in data science, big data analysis and experience in network science. She/he should also have experience in data management, statistics, quantitative empirical data analysis, and large-scale networks. Preferably, she/he should have knowledge on blockchain technologies (or interest to rapidly acquire it).

Other requirements are: (i) Good command of programming languages such as Python/R for data analysis, C++/Rust for development, and good command of relational, non-relational, and graph databases; (ii) Experience with efficient techniques for large-scale data management and analysis; (iii) Very good command of English (oral and written) and excellent communication skills. Our group prioritises developing exciting new research and creating real world applications in cooperation with organisations. Candidates should therefore be able to demonstrate a track record of completing high quality and innovative research. Curiosity and discipline, self-reliance, integrity, and creativity are mandatory attributes.

The Blockchain and Distributed Ledger Technologies Group

The group is at the core of the UZH Blockchain Center, focusing on an interdisciplinary approach to Blockchain and DLT systems. We stand that these systems are paramount examples of complex socio-economic-technical systems. The large-scale properties they evince (consensus at the technical level, trust at the social level, wealth, and power accumulation at the economic level) are non-trivial properties that can only be understood by comprehending the link between micro-level behaviour of the multiple, heterogeneous agents that compose them, and their continuous interactions and rules they must abide. To achieve these goals, we perform large-scale data analysis, minimalistic modelling aimed at uncovering mechanisms behind regularities observed.

The core research lines of the group include: Blockchain Analytics, Cryptoeonomics and Incentive Design, Consensus modelling and analysis. We do so by following complex systems approaches which allow us to understand the mechanisms that drive the emergence of large-scale properties in the systems under study.

As such, we are a leading research groups for interdisciplinary approaches to the field, with multiple collaborations with leading platforms in the space.

Offer
- A team with strong emphasis on quantitative yet applied research.
- The opportunity to work at the frontier of a disruptive interdisciplinary research field.
- A broad-range, independent work as part of a dynamic team in a positive working atmosphere.
- A thorough career development programme (management by objectives, participation in summer schools, conferences, etc.).
- A well-equipped workspace in an excellent university with international reputation.
- A competitive salary.
- A good work-life balance.

How to apply

Further enquires can be sent to Prof. Dr Claudio J. Tessone (address below). To be considered, applications must be sent by email, enclosing the following: (i) Current CV, (ii) University degrees, (iii) Statement of interests and ideas (ca. one page), (iv) Name and contact details of two referees. "[Application] BDLT - Postdoc - Blockchain Analytics" to the two addresses below before 20th September:

- Prof. Dr Claudio J. Tessone (tessone@ifi.uzh.ch)
- Samantha O'Farrell (bdlt.admin@ifi.uzh.ch)